

## HYDROLOGIC FORECASTING COURSE

Co-Sponsored by:  
National Oceanic and Atmospheric Administration  
National Weather Service  
And  
World Meteorological Organization

14 October – 7 November 2003  
Kansas City, MO, USA

**Tentative Agenda**  
**(September 9, 2003)**

<u>Date</u>	<u>Time</u>	<u>Topic</u>	<u>Lecturer</u>
14 October Tuesday	AM	Opening Ceremony/Orientation	NWSTC Dir. (NOAA)
		Introduction	C. Barrett (NOAA)
		Overview of WMO Program	C. Barrett (NOAA)
		Hydrological Operational Multipurpose System (HOMS)	C. Barrett (NOAA)
		NWS Mission, Organization NWS Operations	C. Barrett (NOAA)
	PM	World Water Crisis	C. Barrett (NOAA)
		Selected Water-related Videos	
		Data Acquisition – Rainfall Sensors	C. Barrett (NOAA)
		Designing, Operating, Maintaining And Sustaining Hydrometeorological Monitoring Networks	C. Barrett (NOAA)

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15 October Wednesday	AM/PM	Hydrologic Models Conceptual Models Unit Hydrograph S Curves	D. Johnson (RTi)
16 October Thursday	AM/PM	Introduction to Runoff Computations Rainfall Abstraction Models Sacramento Model Soil Moisture Acct. Models	D. Johnson (RTi)
		Review of Modeling Techniques Theories/Empirical Models Systems	D. Johnson (RTi)
17 October Friday	AM/PM	Model Calibration  Hydraulic Models FLDWAV Model  Stream Flow Routing Simple/Complex Lag & K, Muskingum	D. Johnson (RTi)
18-19 October		WEEKEND, PERSONAL TIME	ALL
20 October Monday	AM/PM	Flood Warning System Cost/Benefit  U.S. River/Flood Forecast Operations	C. Barrett (NOAA)  C. Barrett (NOAA)
21-23 October		NWSRFS USERS WORKSHOP	ALL
24 October Friday	AM	Field Trip to NWS Missouri Basin River Forecast Center	ALL
	PM	Student Presentations Describing Country Hydrologic Operations	ALL
25-26 October		WEEKEND, PERSONAL TIME	ALL

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<b>27 October Monday</b>	<b>AM</b>	<b>FLDWAV Hydraulic Model Description and Applications</b>	<b>J. Sylvestre (NOAA)</b>
	<b>PM</b>	<b>FLDWAV Model Demonstration</b>	<b>J. Sylvestre (NOAA)</b>
<b>28 October Tuesday</b>	<b>AM</b>	<b>Reservoir Operations</b>	<b>J. DeVries (Consultant)</b>
	<b>PM</b>	<b>HEC Programs and Models</b>	<b>K. Lowe (COE)</b>
<b>29 October Wednesday</b>	<b>AM</b>	<b>Remote Sensing in Hydrology Satellite Rainfall Est. Vegetation, Snow, Soil Moisture Flood Inundation Other Applications</b>	<b>G. Serafino (NOAA)</b>
		<b>GOES-DCS</b>	<b>K. Metcalf (NOAA)</b>
	<b>PM</b>	<b>Use of Radar in Hydrology</b>	<b>R. Fulton (NOAA)</b>
		<b>Radar Derived Precipitation</b>	<b>TBA-NOAA</b>
		<b>Multiple Platform Estimation</b>	<b>TBA-NOAA</b>
<b>30 October Thursday</b>	<b>AM</b>	<b>Meteorological Forecast Applications Short Term Quantitative - Precipitation Forecasts Climate Forecasts</b>	<b>P. Manousos (NOAA)</b>
	<b>PM</b>	<b>Hydrologic Measurements Rating Curves</b>	<b>J. Putnum (USGS)</b>
<b>31 October Friday</b>	<b>AM</b>	<b>GIS in Hydrology Estimating Hydrologic - Model Parameters Real Time Flood - Inundation Modeling Applications New satellite/high resolution data</b>	<b>J. Verdin (USGS)</b>

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31 October Friday (con't)	PM	Snowmelt Modeling	V. Koren (NOAA)
		Probabilistic Forecasting Ensemble Streamflow - Forecasting ESP-ADP Model ESP-ADP Demonstration	J. Day (RTi)
1-2 November		WEEKEND, PERSONAL TIME	ALL
3 November Monday	AM	Flash Flood Forecasting NWS and Other Approaches Flash Flood Guidance	J. Zimmerman (NOAA)
	PM	Weather Forecast Office Hydrologic Forecast System (Demonstration)	J. Zimmerman (NOAA)
		Flash Flood Monitoring and Prediction (FFMP) (Demonstration)	
		RFC-wide Multisensor Precipitation Estimator (Demonstration)	
		ALERT Systems	
4 November Tuesday	AM	Designing a Hydrologic Forecast Program Matching Technology to - the Problem Defining the End to End System Network, Data Sources, - Communications, Assimilation Preparing Forecasts Developing Products Developing Operations Concepts Developing Users Dissemination to Users	C. Barrett (NOAA)

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<u>Date</u>	<u>Time</u>	<u>Topic</u>	<u>Lecturer</u>
4 November Tuesday (con't)	PM	Physics-based Distributed Hydrologic Modeling for Flood Forecasting	B. & J. Vieux (Baxter Vieux)
5 November Wednesday	AM/PM	Water Management and Flood Mitigation	Varied
		Linking Forecasts to Users	P. Kirk (FEMA)
		Decision Support Systems	K. Lowe (COE)
		Preparedness and - Response Planning	TBA
		Forecast Costs/Benefits	TBA
6 November Thursday	AM/PM	Future of Hydrologic Forecasting Small Scale Flash Flood - Forecasting Coupling of Hydrologic and - Meteorological Models	TBA
7 November Friday	AM/PM	<b>FINAL EXAM</b> Course Review Evaluations Closing Ceremony	<b>ALL</b> <b>ALL</b> <b>ALL</b> <b>ALL</b>